

**REMARKS**

In response to the Office Action dated March 25, 2008, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance. Prior to entry of this response, Claims 1-21 were pending in the application, of which Claims 1, 6, and 13 are independent. In the Office Action dated March 25, 2008, Claims 1-21 were rejected under 35 U.S.C. § 103(a). Following this response, Claims 1-21 remain in this application. Applicants hereby address the Examiner's rejections in turn.

I. Rejection of Claims 1, 3-4, 6-7, 12-16, and 21 Under 35 U.S.C. § 103(a)

In the Office Action dated March 25, 2008, the Examiner rejected Claims 1, 3-4, 6-7, 12-16, and 21 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,936,963 ("*Saussy*") in view of U.S. Pat. Pub. No. 2003/0154313 ("*Banerjee*") and U.S. Patent No. 6,904,054 ("*Baum*"). Claims 1, 6, and 13 have been amended, and Applicants respectfully submit that the claims, as amended, overcome the cited references and add no new matter.

Consistent with exemplary embodiments, an asymmetric Ethernet service may utilize aggregated Ethernet connections to increase bandwidths in data transfer directions while maintaining asymmetry. (See specification page 5, lines 10-12.) For example, an aggregator device may be positioned between a Digital Subscriber Line Access Multiplexer (DSLAM) containing modems and a downstream link to an Ethernet network. (See specification page 5, lines 12-14.) The aggregator device may

aggregate a first Asymmetric Digital Subscriber Line (ADSL) modem set that is in communication with a second ADSL modem set. (See specification page 5, lines 15-16.) For example, the first ADSL modem set may then be aggregated by the aggregator device located between the first ADSL modem set and a point of service. (See specification page 5, lines 16-18.) Thus, a single Ethernet link may benefit from multiple ADSL modem connection bandwidths to increase the effective asymmetric Ethernet service bandwidth being provided to a subscriber. (See specification page 5, lines 18-20.)

Amended Claim 1 is patentably distinguishable over the cited art for at least the reason that it recites, for example, "the plurality of asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service." Support for this amendment can be found in the specification at least on page 5, lines 10-20.

In contrast, and as stated by the Examiner, *Saussy*, as modified by *Banerjee* does not explicitly disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths. (See Office Action page 6, lines 4-6.) Because *Saussy* and *Banerjee* at least do not disclose aggregating Ethernet connections, *Saussy* and *Banerjee* cannot disclose corresponding aggregator device configurations. Consequently, *Saussy* and *Banerjee* fail to disclose at least one communications device in data communication with an Ethernet network and an Ethernet aggregator device.

Furthermore, *Baum* does not overcome *Suassy's* and *Banerjee's* deficiencies. *Baum* merely discloses a cell relay network enabling Asynchronous Transfer Mode (ATM) cell transport for a subscriber to and from Internet Service Provider (ISP) equipment. (See col. 4, lines 16-19.) In *Baum*, an ATM switch provides a high-speed connection to a gateway router coupled to an ATM cell relay network. (See col. 4, lines 12-14.) *Baum's* ATM switch aggregates traffic from ATM relay links, onto an OC-3 or higher rate SONET link, to the gateway router. (See col. 4, lines 14-16.) Accordingly, *Baum* teaches inter-ISP traffic aggregation via ATM cell transport methods. *Baum*, however, remains completely silent regarding Ethernet frame aggregation between communication devices from service points remote to a central network. Consequently, *Baum* fails to disclose at least one communications device in data communication with an Ethernet network and an Ethernet aggregator device. Rather, *Baum* merely discloses inter-ISP traffic aggregation via ATM cell transport methods.

Combining *Saussy* with *Banerjee* and *Baum* would not have led to the claimed subject matter because *Saussy*, *Banerjee*, and *Baum* either individually or in combination, at least do not disclose "the plurality of asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service," as recited by amended Claim 1. Amended Claims 6 and 13 each include a similar recitation. Accordingly, independent Claims 1, 6, and 13 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of Claims 1, 6, and 13.

Dependent Claims 3-4, 7, 12, 14-16, and 21 are also allowable at least for the reasons described above regarding independent Claims 1, 6, and 13, and by virtue of their respective dependencies upon independent Claims 1, 6, and 13. Accordingly, Applicants respectfully request withdrawal of this rejection of dependent Claims 3-4, 7, 12, 14-16, and 21.

## II. Rejection of Claims 2, 11, and 20 Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected Claims 2, 11, and 20 under 35 U.S.C. § 103(a) as being unpatentable over *Saussy* in view of *Banerjee*, *Baum* and U.S. Pat. Pub. No. 2003/0198217 ("*Redfern*"). Dependent Claim 2 is patentably distinguishable over the cited art for at least the reason that it includes, due to its dependency on amended independent Claim 1, "the plurality of asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service." Dependent Claims 11 and 20 each includes a similar recitation due to their respective dependencies on amended independent Claims 6 and 13.

In contrast, and as stated by the Examiner, *Saussy*, as modified by *Banerjee* does not explicitly disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths. (See Office Action page 6, lines 4-6.) Furthermore, as detailed above, *Baum* does not overcome *Saussy*'s deficiencies.

Moreover, *Redfern* does not overcome *Saussy's*, *Banerjee's*, and *Baum's* deficiencies. *Redfern* merely discloses extending upstream data transmission in a band having a lowest frequency  $f_0$ , by an end user terminal. (See paragraph [0010], lines 1-4.) In *Redfern*, an upstream data transmission target rate is provided. (See paragraph [0010], lines 6-8.) Like *Saussy*, *Banerjee*, and *Baum*, *Redfern* does not disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths while maintaining symmetry. Rather *Redfern* discloses utilizing frequency and power levels to extend upstream data transmission and is silent regarding aggregated Ethernet connections. Because *Redfern* at least does not disclose data transfer bandwidth aggregation, *Redfern* cannot disclose an aggregator device operative to aggregate multiple modem bandwidths so as to form a resultant bandwidth.

Combining *Saussy* with *Banerjee*, *Baum*, and *Redfern* would not have led to the claimed subject matter because *Saussy*, *Banerjee*, *Baum*, and *Redfern*, either individually or in combination, at least do not disclose “the plurality of asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service,” as included in dependent Claim 2. Dependent Claims 11 and 20 each includes a similar recitation. Accordingly, dependent Claims 2, 11, and 20 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of dependent Claims 2, 11, and 20.

### III. Rejection of Claims 5, 8, and 17 Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected Claims 5, 8, and 17 under 35 U.S.C. § 103(a) as being unpatentable over *Saussy* in view of *Banerjee*, *Baum*, and Patent No. 6,785,265 ("*White*"). Dependent Claim 5 is patentably distinguishable over the cited art for at least the reason that it includes, due to its dependency on amended independent Claim 1, "the plurality of asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service." Dependent Claims 8 and 17 each includes a similar recitation due to their respective dependencies on amended independent Claims 6 and 13.

In contrast, and as stated by the Examiner, *Saussy*, as modified by *Banerjee* does not explicitly disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths. (See Office Action page 6, lines 4-6.) Furthermore, as detailed above, *Baum* does not overcome *Saussy*'s deficiencies.

Moreover, *White* does not overcome *Saussy*'s, *Banerjee*'s, and *Baum*'s deficiencies. *White* merely discloses a DSL access network in which an Asynchronous Transfer Mode (ATM) layer is removed from two interfaces and replaced with Ethernet. (See col. 1, line 66-col. 2, line 1.) In *White*, the ATM is replaced with Ethernet at a media access control (MAC) layer in the following interfaces: (a) between the customer premises equipment (CPE) and a remote Ethernet device (RED) terminal, and (b) between the RED terminal and a packet data core network. (See col. 2, lines 2-6.) In *White*, ATM's are replaced with Ethernet at various interfaces. Like *Saussy*, *Baum*, and *Banerjee*, *White* does not disclose utilizing aggregated Ethernet connections to increase

data transfer bandwidths while maintaining symmetry. Rather *White* discloses replacing ATM's with Ethernet and is silent regarding aggregated Ethernet connections. Because *White* at least does not disclose data transfer bandwidth aggregation, *White* cannot disclose an aggregator device operative to aggregate multiple modem bandwidths so as to form a resultant bandwidth.

Combining *Saussy* with *Banerjee*, *Baum*, and *White* would not have led to the claimed subject matter because *Saussy*, *Banerjee*, *Baum*, and *White*, either individually or in combination, at least do not disclose "the plurality of asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service," as included in dependent Claim 5. Dependent Claims 8 and 17 each includes a similar recitation due to their respective dependencies on amended independent Claims 6 and 13. Accordingly, dependent Claims 5, 8, and 17 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of dependent Claims 5, 8, and 17.

#### IV. Rejection of Claims 9 and 18 Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected Claims 9 and 18 under 35 U.S.C. § 103(a) as being unpatentable over *Saussy* in view of *Banerjee*, *Baum*, *White*, and U.S. Patent No. 6,243,394 ("*Deng*"). Dependent Claim 9 is patentably distinguishable over the cited art for at least for the reason that it includes, due to its dependency on amended independent Claim 6, "the plurality of asymmetric Ethernet connections

comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service.” Dependent Claim 18 includes a similar recitation due to its dependency on amended independent Claim 13.

In contrast, and as stated by the Examiner, *Saussy*, as modified by *Banerjee* does not explicitly disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths. (See Office Action page 6, lines 4-6.) Furthermore, as detailed above, *Baum* and *White* do not overcome *Saussy*’s deficiencies.

Moreover, *Deng* does not overcome *Saussy*’s, *Banerjee*’s, *Baum*’s, and *White*’s deficiencies. *Deng* merely discloses controlling data communication between a local area network (LAN) and a remote device through an ADSL channel. (See col. 1, line 66-col. 2, line 2.) A protocol converter in *Deng* converts a data packet protocol transmitted through the ADSL channel from a LAN protocol to an ADSL protocol. (See col. 2, lines 5-8.) In addition, *Deng*’s protocol converter converts the data packet protocol transmitted through the LAN channel from the ADSL protocol to the LAN protocol. (See col. 2, lines 8-10.) Like *Saussy*, *Banerjee*, *Baum*, and *White*, *Deng* does not disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths while maintaining symmetry. Rather *Deng* discloses controlling communication between a LAN and a remote device and is silent regarding aggregated Ethernet connections. Because *Deng* at least does not disclose data transfer bandwidth aggregation, *Deng* cannot disclose an aggregator device operative to aggregate multiple modem bandwidths so as to form a resultant bandwidth.



Combining *Saussy* with *Banerjee*, *Baum*, *White*, and *Deng* would not have led to the claimed subject matter because *Saussy*, *Banerjee*, *Baum*, *White*, and *Deng*, either individually or in combination, at least do not disclose “the plurality of asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service,” as included in dependent Claim 9. Dependent Claim 18 includes a similar recitation due to its dependency on amended independent Claim 13. Accordingly, dependent Claims 9 and 18 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of dependent Claims 9 and 18.

V. Rejection of Claims 10 and 19 Under 35 U.S.C. § 103(a)

In the Office Action, the Examiner rejected Claims 10 and 19 under 35 U.S.C. § 103(a) as being unpatentable over *Saussy* in view of *Banerjee*, *Baum*, *White*, *Deng* and U.S. Patent No. 6,061,357 (“*Olshansky*”). Dependent Claim 10 is patentably distinguishable over the cited art for at least for the reason that it includes, due to its dependency on amended independent Claim 6, “the plurality of asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service.” Dependent Claim 19 includes a similar recitation due to its dependency on amended independent Claim 13.

In contrast, and as stated by the Examiner, *Saussy*, as modified by *Banerjee* does not explicitly disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths. (See Office Action page 6, lines 4-6.) Furthermore, *Banerjee*, *Baum*, *White*, and *Deng* do not overcome *Saussy*'s deficiencies for reasons stated above.

Moreover, *Olshansky* does not overcome *Saussy*'s, *Banerjee*'s, *Baum*'s, *White*'s, and *Deng*'s deficiencies. *Olshansky* merely discloses an Ethernet to ADSL adapter for controlling data communication between an Ethernet port and an ADSL modem connected to an ADSL channel. (See col. 1, line 66-col. 2, line 2.) *Olshansky*'s adapter comprises: i) a first buffer for storing data packets received at the Ethernet port; ii) means for transmitting the data packets from the first buffer to the ADSL modem at a first ADSL transmission rate; and iii) means for transmitting data packets received from the ADSL modem to the Ethernet port at a second ADSL transmission rate. (See col. 2, lines 2-8.) As in the cited art referred to above, *Olshansky* does not disclose utilizing aggregated Ethernet connections to increase data transfer bandwidths while maintaining symmetry. Rather *Olshansky* discloses controlling communication between an Ethernet port and ADSL modem and is silent regarding aggregated Ethernet connections. Because *Olshansky* at least does not disclose data transfer bandwidth aggregation, *Olshansky* can not disclose an aggregator device operative to aggregate multiple modem bandwidths so as to form a resultant bandwidth.

Combining *Saussy* with *Banerjee*, *Baum*, *White*, *Deng*, and *Olshansky* would not have led to the claimed subject matter because *Saussy*, *Banerjee*, *White*, *Deng*, and *Olshansky*, either individually or in combination, at least do not disclose "the plurality of

asymmetric Ethernet connections comprising at least one communications device in data communication with the Ethernet network and the aggregator device, the aggregator device being an Ethernet networking device at the point of service,” as included in dependent Claim 10. Dependent Claim 19 includes a similar recitation due to its dependency on amended independent Claim 13. Accordingly, dependent Claims 10 and 19 are each patentably distinguishable over the cited art, and Applicants respectfully request withdrawal of this rejection of dependent Claims 10 and 19.

#### VI. Conclusion

In view of the foregoing remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims. The preceding arguments are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding argument in favor of patentability is advanced without prejudice to other bases of patentability. Furthermore, the Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 13-2725.

Respectfully submitted,  
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